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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,323	04/13/2004	Edoardo Campini	42390.P19199	5399

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EXAMINER

ZARROLI, MICHAEL C

ART UNIT PAPER NUMBER

2839

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/824,323	<b>Applicant(s)</b> CAMPINI ET AL.	
	<b>Examiner</b> Michael C. Zarroli	<b>Art Unit</b> 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 31-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 31-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because it is too long.

Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

2. Claim 1 objected to because of the following informalities: In lines 9 and 10 “each of one” should be -- each of the one --. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-16 and, 31-40 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2-4 and 40 contain the trademark/trade name PICMG 3.0 AdvancedTCA™. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex*

*parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe backplane connectors and, accordingly, the identification/description is indefinite.

Examiner is not familiar with the term “normal” slots. The examiner will interpret “normal” to mean any slot that is not extended.

Regarding claims 3 and 4 the applicant needs to positively recite the “zone” connectors and what they comprise. Where is zone 1?

Regarding claim 12, it is unclear how the switch fabric topology can be “based” on the configurations of the cards. The examiner will interpret this phrase to mean that the type of switch is chosen depending on the type of topology that is desired.

Regarding claim 32 the examiner is not sure what the reciting of “differential pairs” means, differential pairs of what? The examiner will interpret this phrase to mean differential pairs of connectors.

Antecedent problem in claim 36 with “**the** plurality of additional data channels.” Antecedent problem in claim 38 with “**the** plurality of switch cards.” Antecedent problem in claim 39 with “**the** plurality of line cards.”

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 15, 31-32, 34, 38 (as best understood) rejected under 35 U.S.C. 102(e) as being anticipated by Linares et al.

Linares discloses an apparatus comprising; a backplane (e.g. 102, 300) comprising a plurality of slots fig. 4A, the plurality of slots comprising at least one extended slot (fig. 1 leftside of 102) and at least two normal slots (fig. 1 rightside of 102),

each normal slot comprising a first set of connectors rP3-rP5, each extended slot comprising the first set of connectors and an additional, second set of connectors P1-P2; and signal lines connecting the connectors of the extended and normal slots to support at least one data channel between the first set of connectors of each of one or more of the at least one extended slot and the first set of connectors of each of one or more of the at least two normal slots (various figures in particular fig. 3 at 310), and to support at least one data channel between the second set of connectors of each of one or more of the at least one extended slot and the first set of connectors of each of one or more of the at least two normal slots (various figures in particular fig. 5B at 516).

Claim 15 Linares discloses that the signal lines include electric conductors fig. 3 at 310.

Claim 31 Linares discloses that the second set of connectors of the two extended slots and the first set of connectors of the twelve normal slots support additional data channels (figures 5A, 5B, 7A & 7B).

Claim 32 Linares discloses that the connectors of each extended slot and normal slot comprise one or more differential pairs fig. 4A.

Claim 38 Linares discloses that the at least one extended slot supports coupling of one of an extended switch card, the plurality of switch cards comprise the normal switch card and the extended switch card fig. 1.

***Claim Rejections - 35 USC § 103***

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-4 and, 40 (as best understood) rejected under 35 U.S.C. 103(a) as being unpatentable over Linares et al.

Linares does not specifically recite the industry standards identified by the applicant.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to apply the industry standards identified by the applicant in the selection of connectors for Linares. The motivation for this is well known in the art and would be to select connectors that match the architecture the system designer is trying to achieve. Simply using an industrial standard in a design is not grounds for patenting a claim.

10. Claim 5 (as best understood) rejected under 35 U.S.C. 103(a) as being unpatentable over Linares et al in view of Nakamatsu et al.

Linares discloses slots on two sides, not one, of the backplane.

Nakamatsu discloses fig. 8 a plurality of slots are spaced apart along a first direction, each slot extending along a second direction at an angle (90 degrees) to the first direction.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify Linares so that the first and second set of connectors of each extended slot are spaced apart along the second direction as taught by



Nakamatsu. The motivation for this is well known in the art and would be to enable ease of maintenance. Well settled case law has shown that unless there is a compelling reason for doing so, merely shifting the location of parts is not grounds for a patent, *In re Japiske*, 181 F.2d 1019, 1023, 86 USPQ 70, 73 (CCPA 1950)

11. Claim 6 (as best understood) rejected under 35 U.S.C. 103(a) as being unpatentable over Linares et al.

Linares does not disclose that the backplane is in the shape of a T.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the shape of the backplane of Linares into the shape of a T. The motivation for this shape change would be to enable fitting of the backplane into a more confined space. Unless there is a good reason for doing so, case law has shown that merely changing the shape of a component is not grounds for a patent, *In re Dailey*, 149 USPQ 47 (CCPA 1976)

12. Claims 7-8 and 13-14 and 37 (as best understood) rejected under 35 U.S.C. 103(a) as being unpatentable over Linares et al.

Linares discloses that a line card 106 interfacing with at least two normal slots and at least one switch card 104 interfacing with the at least one extended slot. Linares does not disclose two or more line cards fig. 1.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the device of Linares to have two line cards instead of one. The motivation for this simple change is suggested by Linares in figures 7A & 7B where unending planes seem to suggest increased components to enable a larger functionality. Well settled case law has shown that merely duplicating the number of components is not grounds for a patent, *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) The same reasoning is used to reject as obvious claims 13 and 14 and 37. The examiner begs the question, what is so patentably significant with duplicating components.

***Allowable Subject Matter***

13. Claims 9-12, 16, 33, 36 and, 39 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 9 the interface logic. Regarding claim 16 the optical waveguides. Regarding claim 33 the ports comprising serializer/deserializers. Regarding claim 36 the enhanced bandwidth of switching.

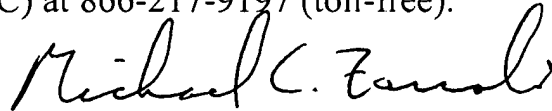
*Conclusion*

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Loach et al teaches a backplane connector system with "normal" and extended slots.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Primary Examiner  
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